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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,784	11/19/2004	Ayaaki Ishizaki	2004-1526A	8456
513	7590	12/13/2005	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			WARE, DEBORAH K	
		ART UNIT	PAPER NUMBER	1651

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/508,784	ISHIZAKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Deborah K. Ware	1651	

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 28 September 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 5-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 September 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

Claims 5-8 are presented for reconsideration on the merits.

### ***Specification***

The substitute specification filed November 28, 2005, has been received and entered. No new matter has been observed by the examiner when compared with the marked up version provided by Applicants.

### ***Response to Amendment***

The amendment and remarks filed November 28, 2005, have been received and entered. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-A-58-98085, cited of record.

Applicant's arguments filed November 28, 2005, have been fully considered but they are not persuasive. The argument that aerobic microorganisms are cultured, but not continuously cultured, is noted. However, the reference clearly teaches that all types of microorganisms are cultured and this reads on anaerobic as well that are cultured continuously. Note at page 2, lines 3-4, that a supplying step of a method for supplying a substrate constituting a carbon source for culturing microorganisms has been practiced and well within the skill of an ordinary artisan. Glucose is a typical and well known carbon source for culturing all types of microorganisms. At page 4, lines 14-15, it is clear that aerobic microorganisms are only disclosed to be one type of

microorganism which can be cultured by the method of the cited JP reference, noted above. The reference clearly reads on any type of microorganism and one of skill would have expected successful results while employing the method of culturing so disclosed with the selection of anaerobic microorganisms.

Further, the feeding of the substrate is not based upon on added amount of pH reagent alone as argued by Applicants but as noted above includes feeding a substrate containing a carbon source of which glucose would have been an obvious choice to select for by one of skill in the culturing arts. A pH apparatus is used by the disclosed reference as well and the reference clearly relates to a high yield culture method adapted for a high yield culture of microorganisms metabolizing an alkaline substance with proliferation. Therefore, the residual carbon source concentration in the substrate (i.e. culture liquid) would have been expected to be controlled by feeding a substrate based on alkaline conditions during proliferation and metabolism of the carbon source for a given period set of time. Note also page 1, lines 18-22.

Therefore, the feeding of a substrate is based not on added amount of pH reagent alone as argued by Applicants. Also Applicants are clearly controlling the pH of their culture liquid under alkaline conditions during feeding of the substrate, wherein they add an alkaline solution which reads on the addition of a pH reagent as disclosed by the JP reference, cited herein and of record. In addition, the method of the cited JP disclosure clearly reads on carrying out the method continuously because it discloses that they desire to remedy problems with supplying substrate during continuous

culturing methods wherein problems have been known to occur with the carbon source becoming excessive or deficient hindering microorganism yield, note page 2, line 14-18.

The claims are taught or at least suggested by the cited prior art and Applicants' arguments are not deemed persuasive. The claims are *prima facie* obvious over the cited prior art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

All claims fail to be patentably distinguishable over the state of the art discussed above and cited of record. Therefore, the claims are properly rejected.

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah K. Ware whose telephone number is 571-272-0924. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*DKW*  
Deborah K. Ware  
December 9, 2005



DAVID M. NAFF  
PRIMARY EXAMINER  
ART UNIT 1651